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Sutton

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- (54) **VEHICLE FISHING ROD HOLDER**
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B60R 9/08 (2006.01)
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CPC .. A01K 97/10; B60R 9/08; B60R 9/06; B63B 25/002; B63B 34/05; B63B 35/14
USPC 43/21.2; 114/364; 280/727
See application file for complete search history.

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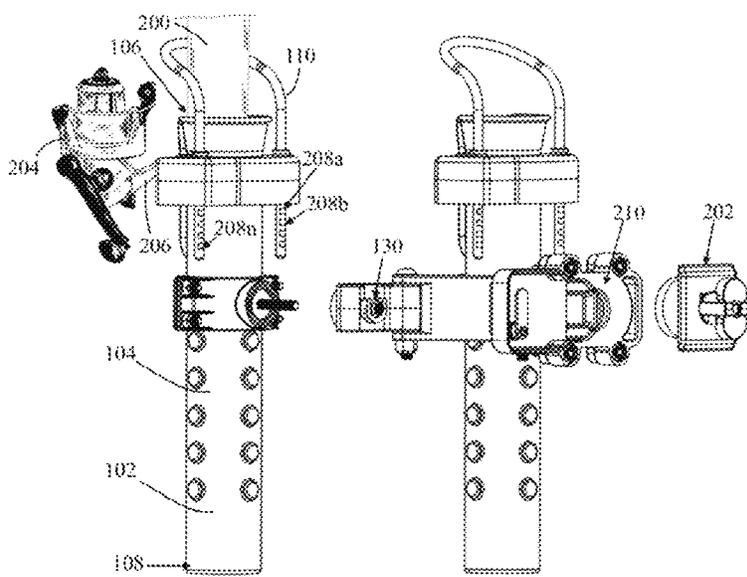
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Johnson Dalal

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(57) **ABSTRACT**

A vehicle fishing rod holder with a rod holder body that is couplable to the bed of a truck in a locked configuration utilizing one or more mounting brackets. The rod holder body define a holding channel for a fishing rod and a discontinuous slot for receiving a rod reel post of the fishing rod. A locking bar is coupled to the rod holder body and is operably configured to selectively translate longitudinally to lock the rod and reel into place by being positioned over the rod reel post. The rod holder body is also vertically adjustable using a clamping member and rotationally adjustable or pivoted using one or more arms.

18 Claims, 16 Drawing Sheets



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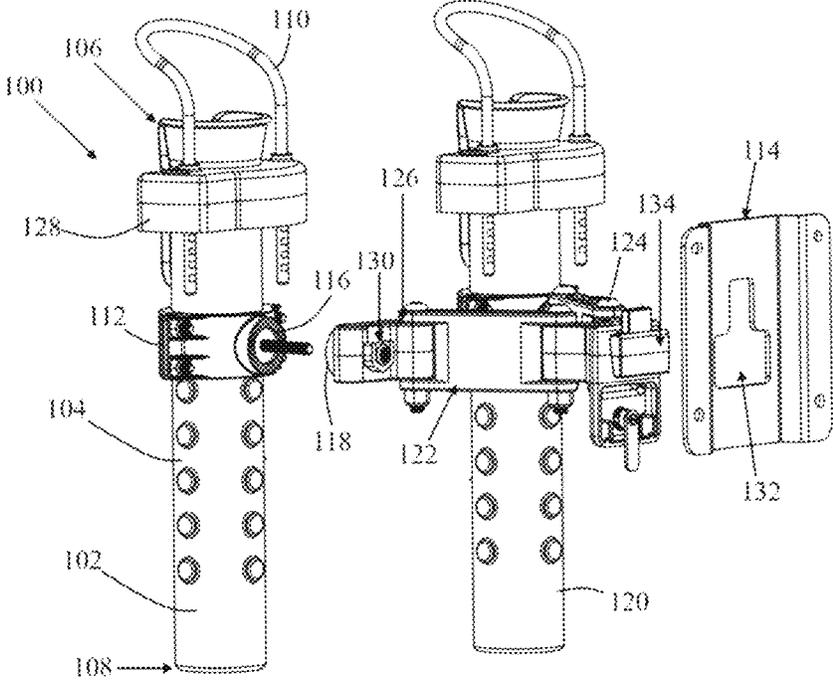


FIG. 1

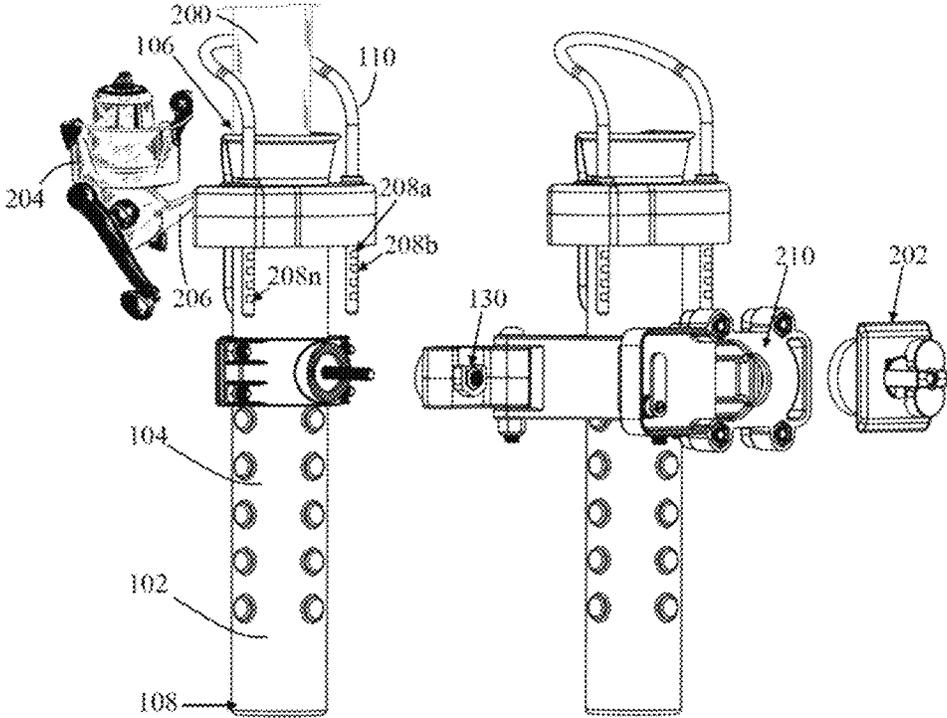


FIG. 2

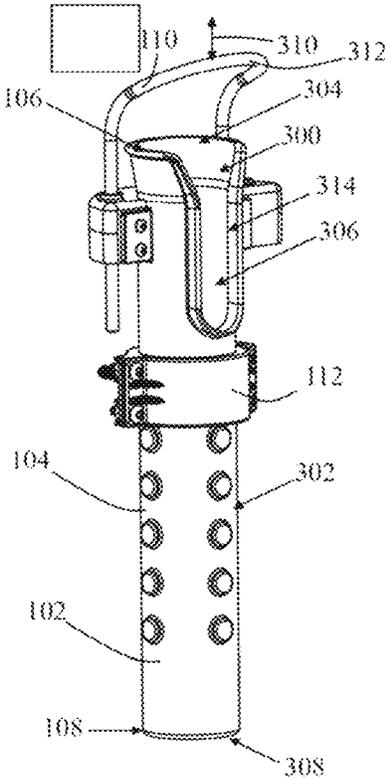


FIG. 3

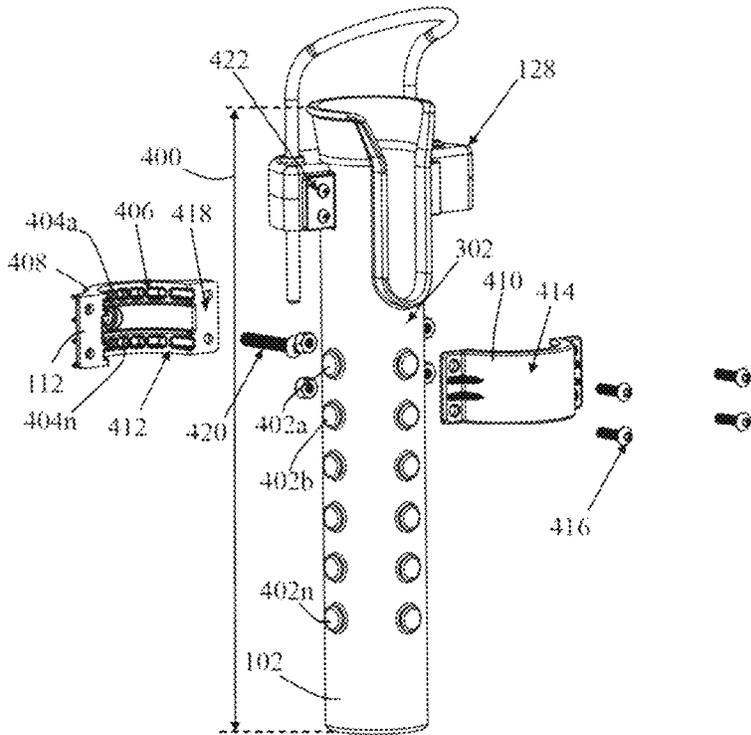


FIG. 4

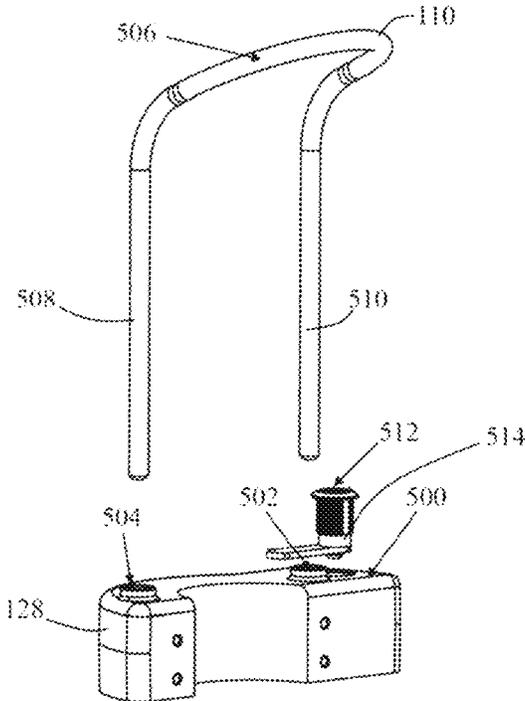


FIG. 5

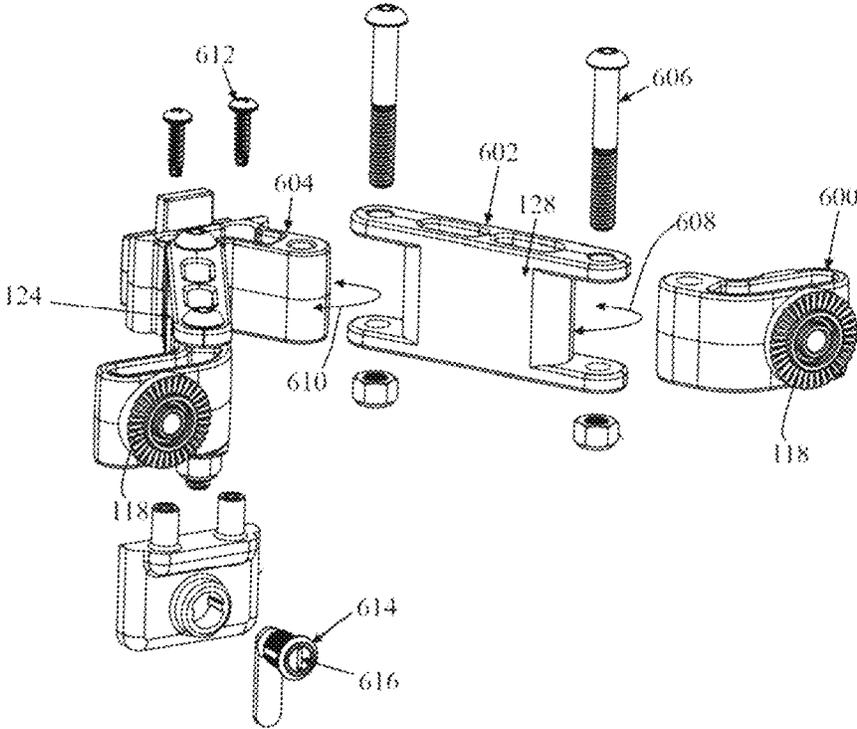


FIG. 6

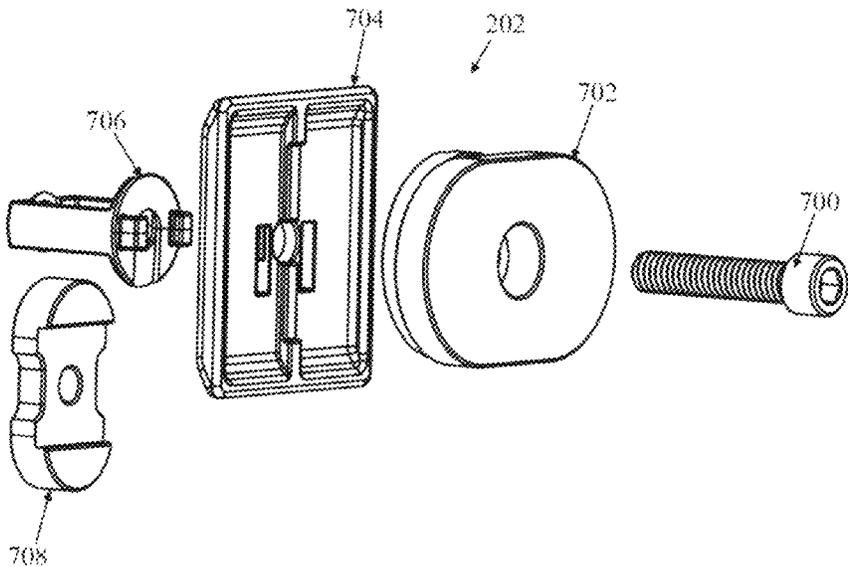


FIG. 7

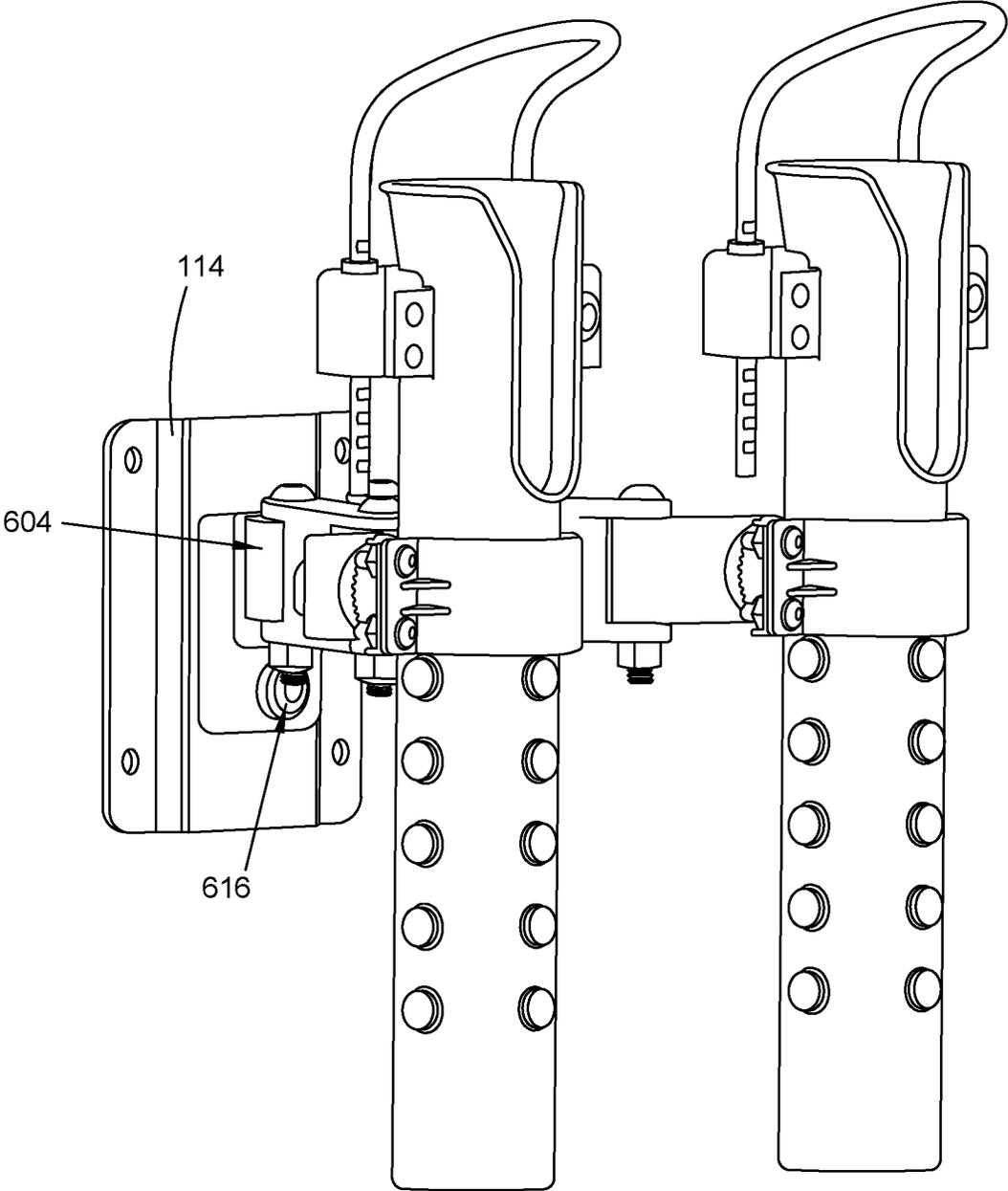


FIG.8

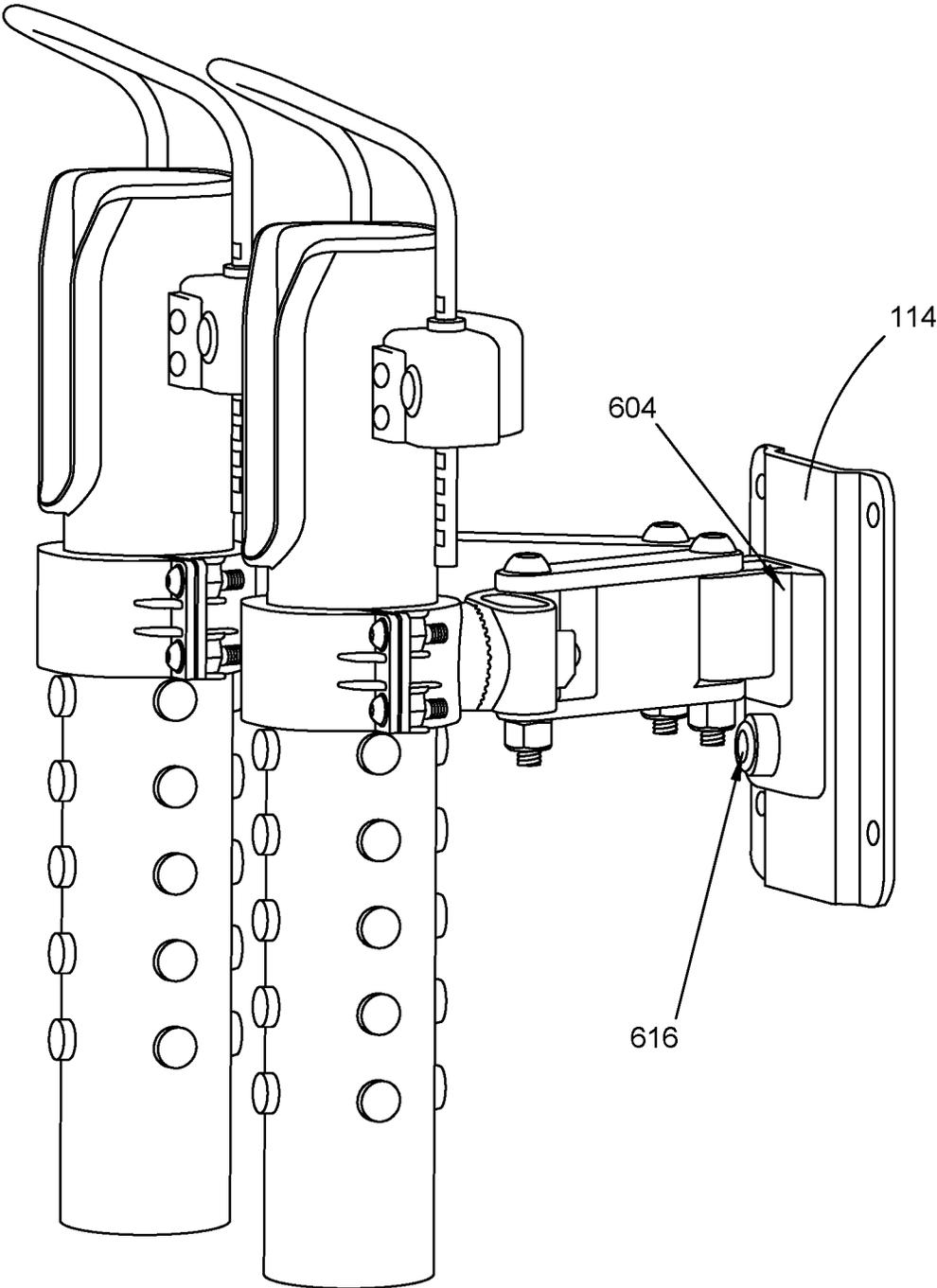


FIG.9

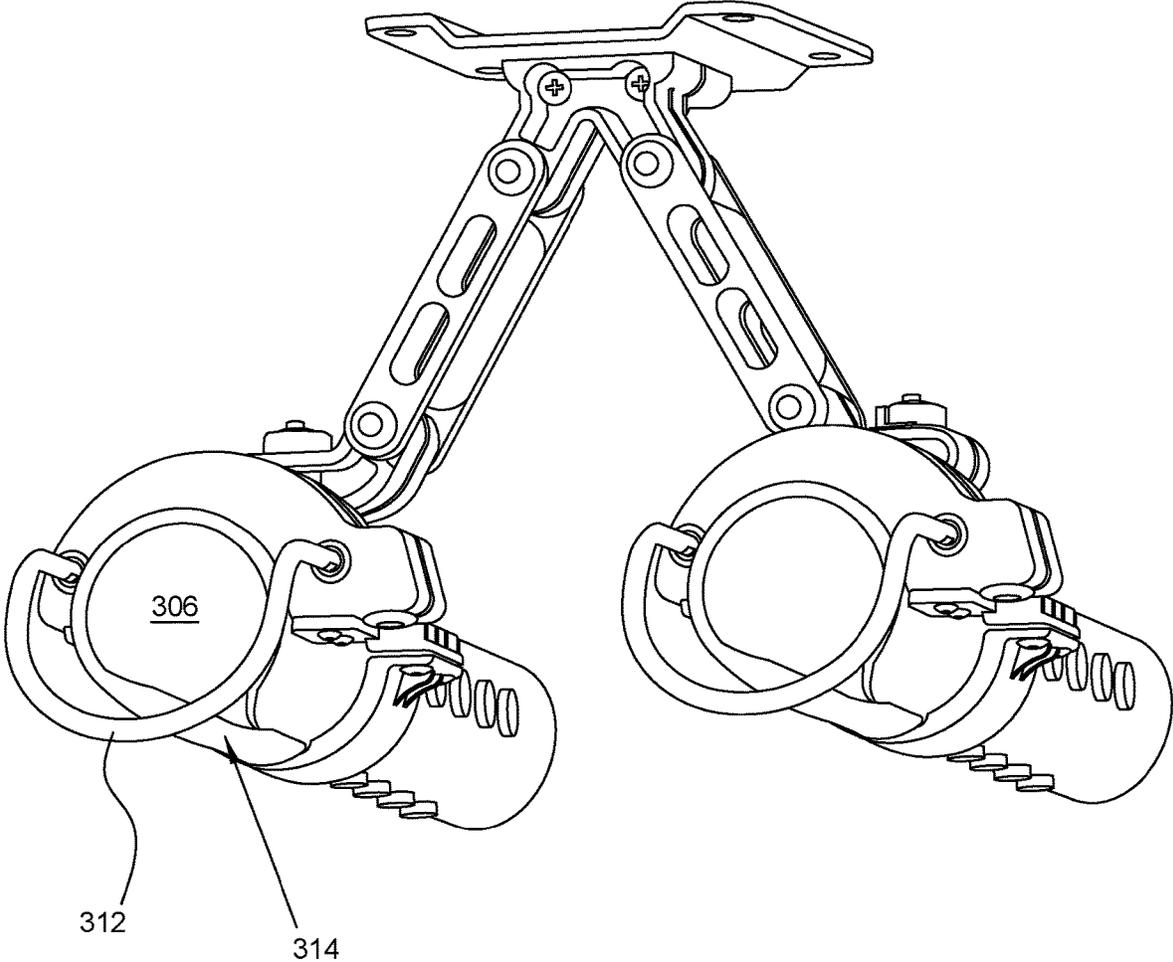


FIG. 10

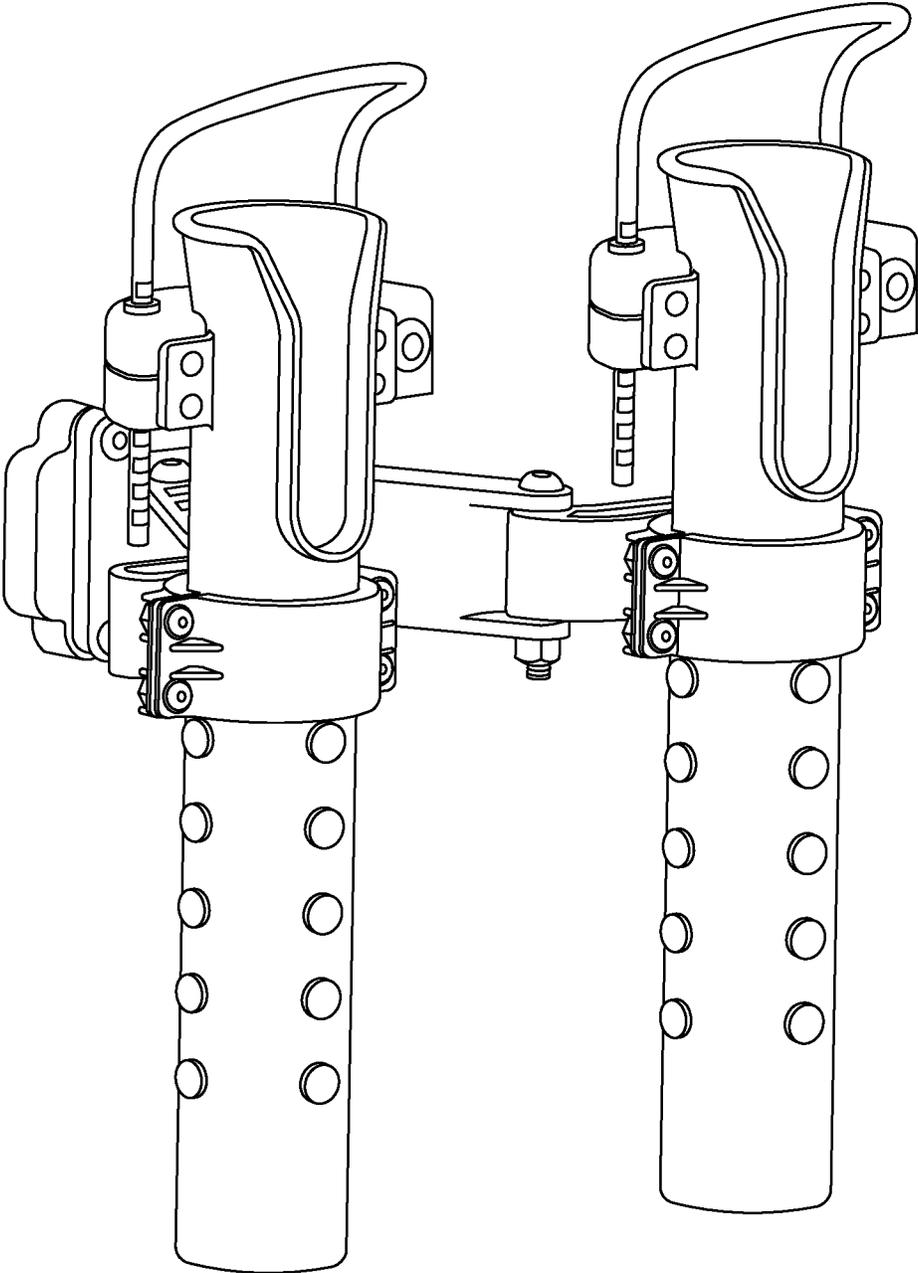


FIG.11

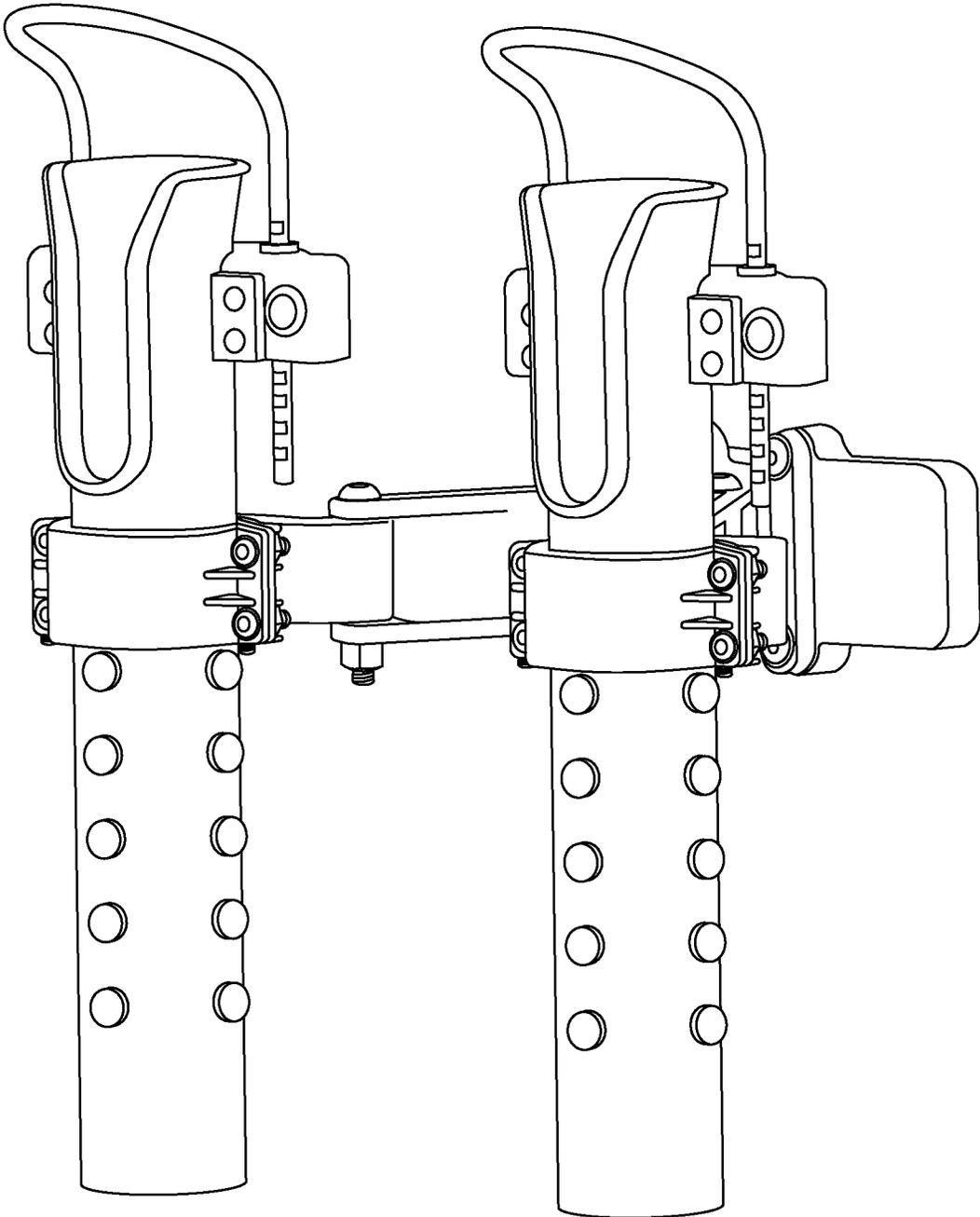


FIG.12

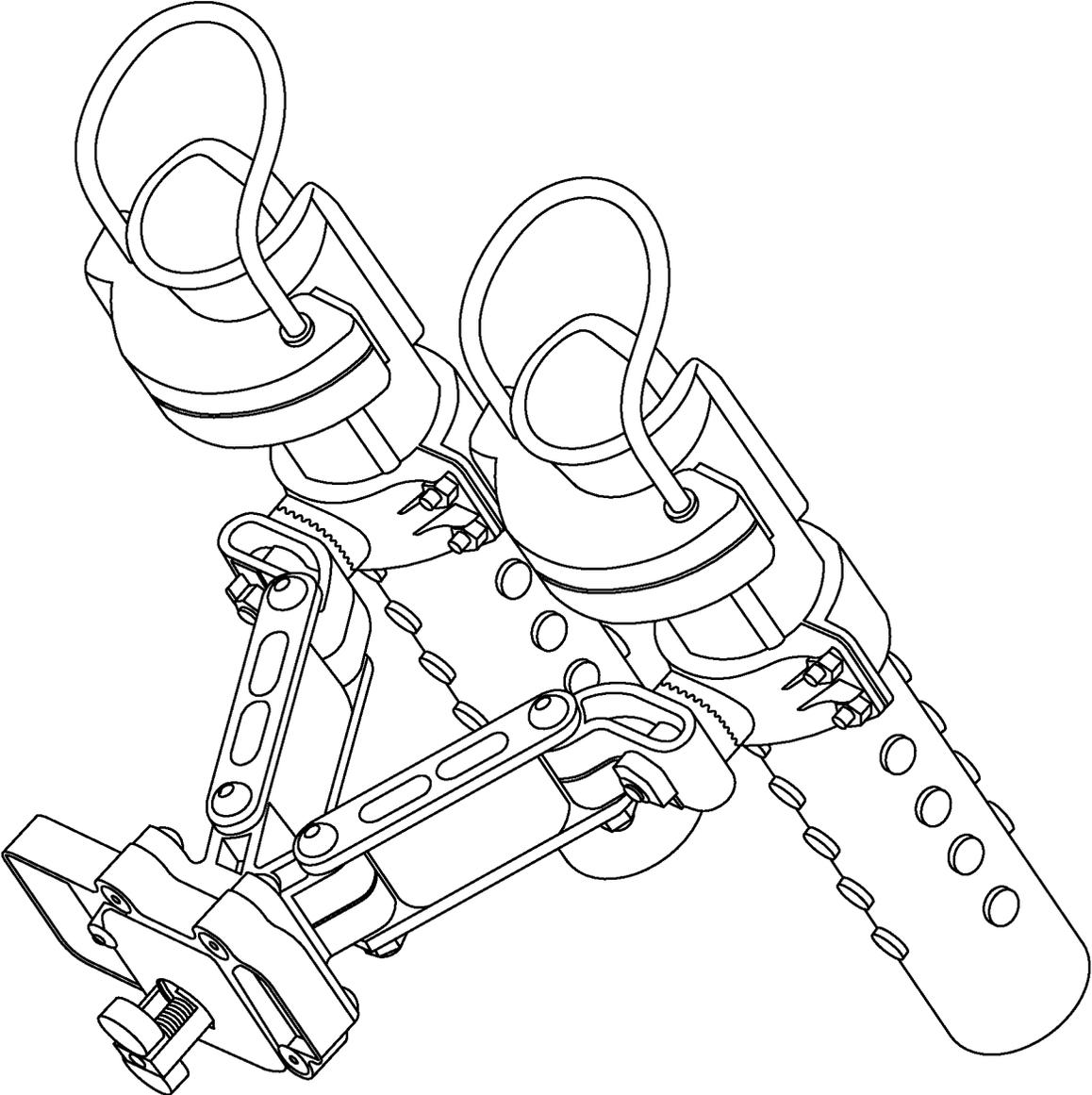


FIG.13

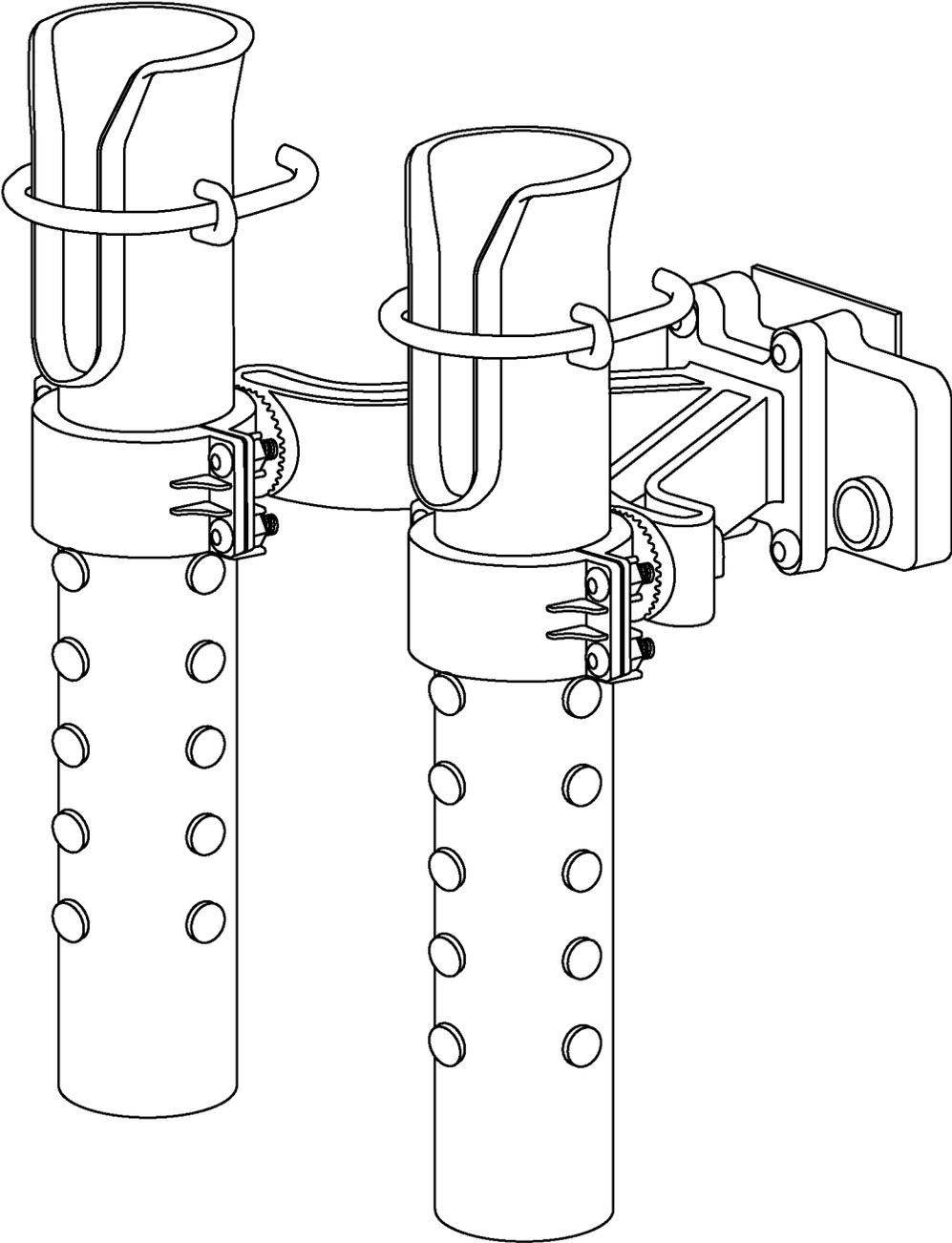


FIG. 14

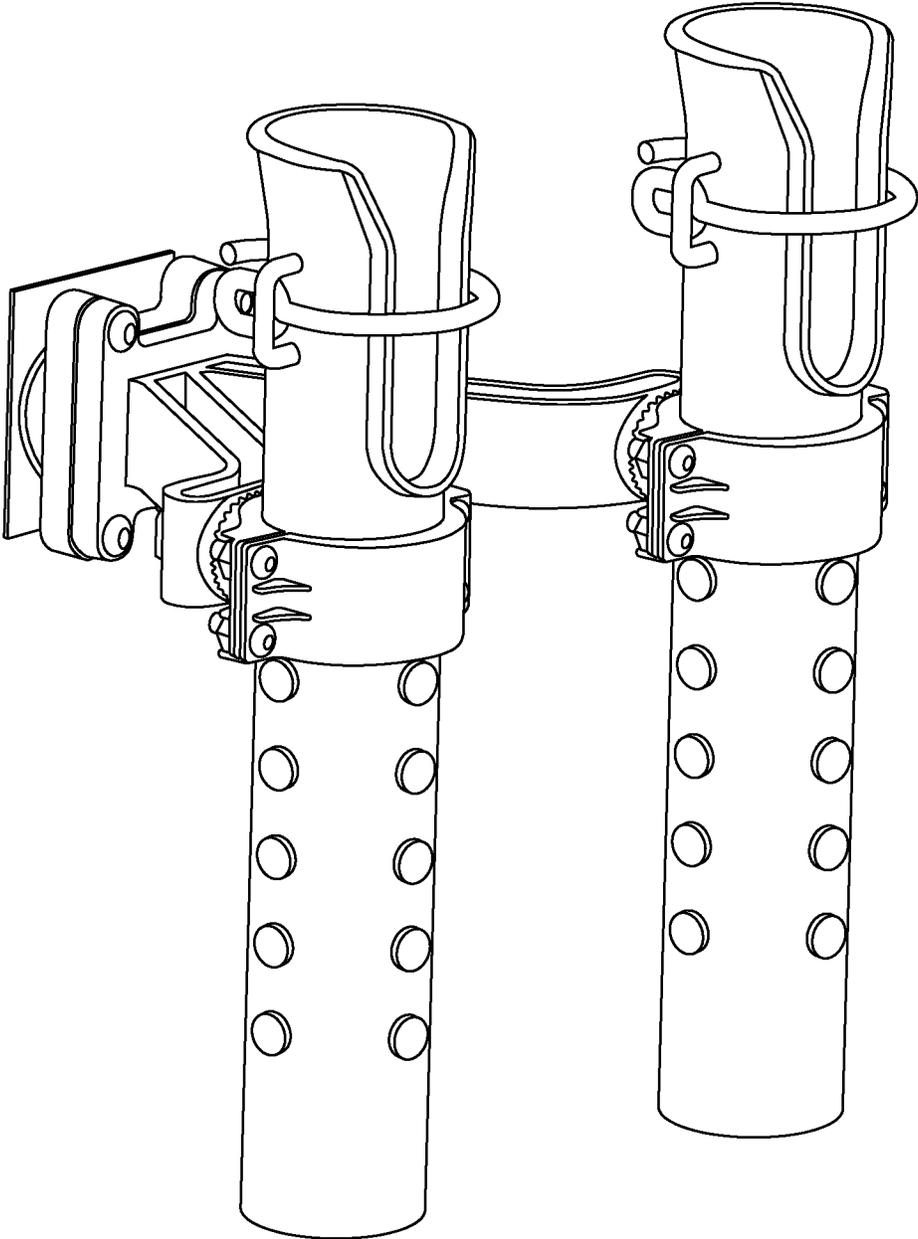


FIG.15

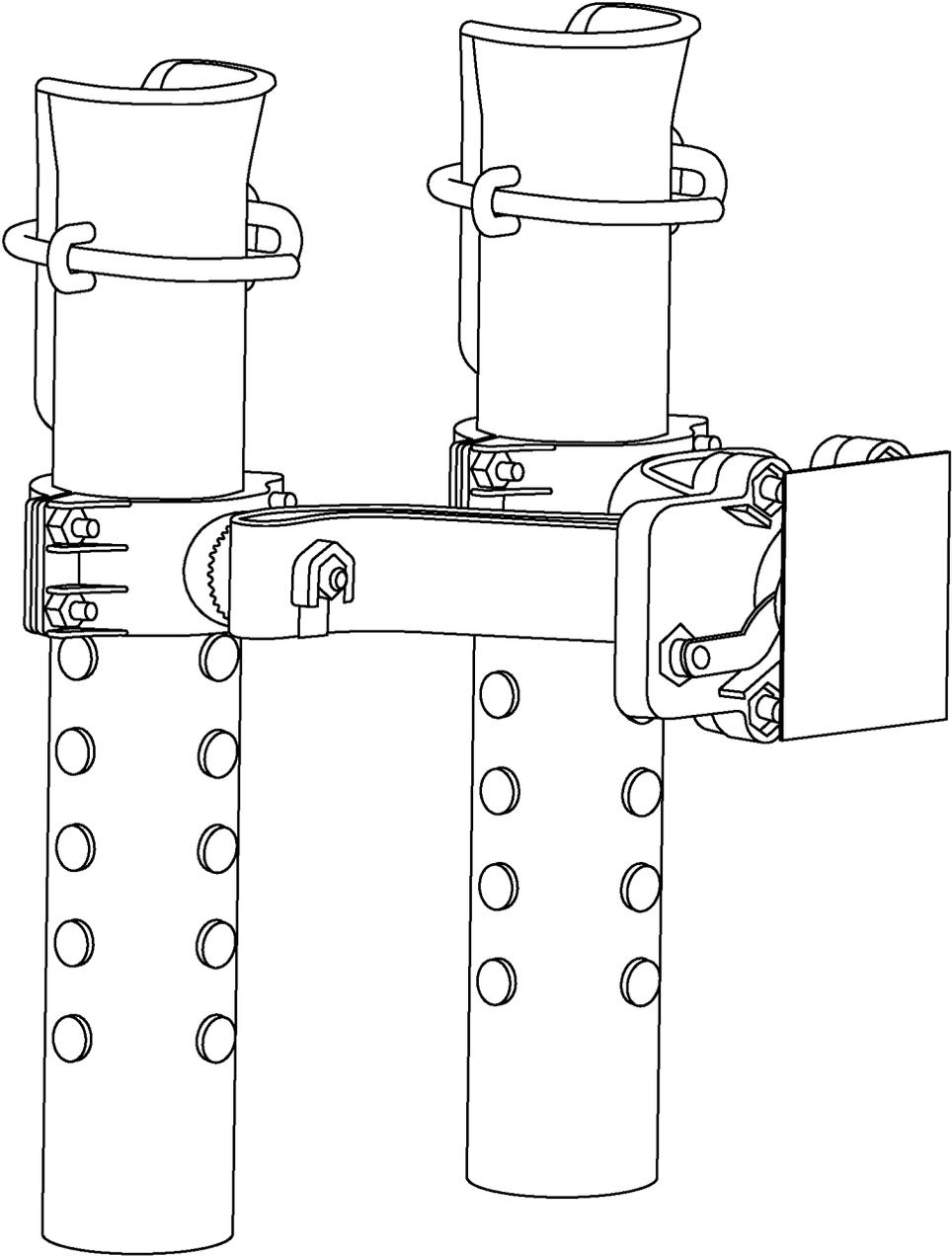


FIG. 16

1

VEHICLE FISHING ROD HOLDER

FIELD OF THE INVENTION

The present invention relates generally to fishing rod holders, and, more particularly, relates to fishing rod holders selectively couplable to a vehicle, namely the bed of a pick-up truck.

BACKGROUND OF THE INVENTION

Whether professionally, recreationally, and/or for sport, many individuals all over the world engage in fishing. Many individuals utilize a fishing rod when fishing. The fishing rod is generally a long, flexible rod used by fishermen to catch fish, a line coupled thereto, and ending in a hook or "angle." The length of the rod can vary between approximately 2 and 20 feet. To entice fish, bait or lures are impaled on one or more hooks attached to the line. The line is generally stored on a reel that is offset from the rod and which reduces tangles and assists in landing a fish. Commonly, rods are made from fiberglass or carbon fiber and can often be expensive. The reels attached to the rods can also be expensive. Therefore, fishing equipment is often prone to theft. Further, user give extra care toward maintaining their fishing equipment.

Many users find transporting a rod to and from a body of water problematic. For example, the rod length can make carrying and transporting the rod impossible, impracticable, inconvenient, and unsafe. To solve said problem, many users attach one or more rods on top of a vehicle, inside a vehicle extending through one or more windows, and, if a pick-up truck is utilized, in the bed of a pick-up truck. When utilized in a pick-up truck, the rods and reels can become damaged during transport due to vibrational and other external forces. Moreover, the fishing rods are generally prone to theft if left unattended or while users are otherwise not watching the fishing rods.

Some known devices and method available to address the above concerns include straps, cumbersome housings, holders, and fasteners utilized to keep rods affixed to a surface of the vehicle. Many of these devices, however, are difficult and time-consuming to install and use, e.g., a user may be required to drill into the bed of a truck. Some of the permanent or semi-permanent devices are also expensive. Some known devices include housings that take up useable space from the bed of the trunk, which many users find problematic. Many known devices also do not effectively resist the possibility of theft in an efficient manner. Further, those known devices do not enable a user to effectively and efficiently organize, store, and/or adjust the orientation of the rod(s)/reel(s). Further, those known devices do not enable user to easily access rods without having to climb in bed or use assistance to retrieve rods. Additionally, other known devices do not allow them to be accessed easily, e.g., they stretch across the bed leaving a user without any or limited placement options.

Therefore, a need exists to overcome the problems with the prior art as discussed above.

SUMMARY OF THE INVENTION

The invention provides a vehicle fishing rod holder that overcomes the hereinafore-mentioned disadvantages of the heretofore-known devices and methods of this general type and that enables full adjustment and/or locking of a fishing rod, through the holder. Beneficially, the holder is operably configured to utilize the existing tie down designations in the

2

bed of pick-up trucks such as Ford®, GMC® and Chevy® to create efficiency, organization, and security when storing and transporting fishing rod set ups. The present invention enables a quick and effective installation, a snug, organized, and compact fit of the holder on the vehicle, quick and effective rotational and lateral adjustment of the rod while being retained by the holder, and safe and effective retention of the rod while be retained by the holder.

With the foregoing and other objects in view, there is provided, in accordance with the invention, a vehicle fishing rod holder with a rod holder body having a sidewall with an upper end, a bottom end opposing the upper end defining an upper aperture, a body length separating the upper and bottom ends, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end and terminating along the body length. The vehicle fishing rod holder also includes a locking bar coupled to the rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to the discontinuous slot defined by the sidewall and having longitudinally restricted movement and a removed position with the portion of the locking bar not positioned proximally adjacent to the discontinuous slot defined by the sidewall. Further, the vehicle fishing rod holder includes a holder clamping member directly, translatably, and selectively removably coupled to the rod holder body and selectively rotatably coupled to a mounting bracket having a free surface operably configured for selectively locked retention to a truck bed.

In accordance with another feature, an embodiment of the present invention includes the bottom end having a bottom aperture defined thereon, wherein the holding channel continuously spans and separates the upper aperture and the bottom aperture.

In accordance with a further feature of the present invention, the rod holder body is elongated and the holding channel is cylindrical.

In accordance with yet another feature, an embodiment of the present invention also includes a front plurality and a rear plurality of locking notches disposed longitudinally along the outer surface of the sidewall of the rod hold body and disposed, respectively, on opposing side surfaces of the sidewall of the rod hold body, wherein the holder clamping member includes front and rear locking notches disposed, respectively, on opposing side surfaces of the holder clamping member and that have a complementary coupling configuration with respect to the front plurality and a rear plurality of locking notches disposed on the outer surface of the sidewall of the rod hold body.

In accordance with an additional feature of the present invention, the front plurality and the rear plurality of locking notches extending at least 50% of the body length and equally spaced with respect to one another on the opposing side surfaces of the sidewall of the rod hold body.

In accordance with a further feature, an embodiment of the present invention also includes the outer surface of the sidewall of the rod hold body having a left plurality and a right plurality of locking notches disposed longitudinally along the outer surface of the sidewall of the rod hold body and disposed, respectively, on opposing side surfaces of the sidewall of the rod hold body, wherein the front plurality, the rear plurality, the left plurality and the right plurality of locking notches also extend at least 50% of the body length and are equally spaced with respect to one another on the

3

respective opposing side surfaces of the sidewall of the rod hold body. The front plurality, the rear plurality, the left plurality and the right plurality of locking notches are of a complementary coupling configuration with respect to the front and rear locking notches and a left and a right locking notch, respectively, of the holder clamping member.

In accordance with an additional feature, an embodiment of the present invention also includes the holder clamping member has two collar members each with an inner surface having, respectively, the front plurality and the rear plurality of locking notches, the two collar members removably and directly coupled together with at least one fastener to contour and surround a perimeter of the outer surface of the rod holder body, the complementary coupling configuration restricting longitudinal movement of the rod holder body respect to the two collar members.

In accordance with yet another feature, an embodiment of the present invention also includes the holder clamping member having a serrated fastener selectively rotatably coupled in a rotationally locked position with respect to the mounting bracket through a complementary serrated fastener.

In accordance with a further feature, an embodiment of the present invention also includes a second rod holder body having a sidewall with an upper end, a bottom end opposing the upper end of the second rod holder body and defining an upper aperture, a body length separating the upper and bottom ends of the second rod holder body, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end of the second rod holder body and terminating along the body length of the second rod holder body, a locking bar coupled to the second rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to the discontinuous slot defined by the sidewall of the second rod holder body and having longitudinally restricted movement and a removed position with the portion of the locking bar not positioned proximally adjacent to the discontinuous slot defined by the sidewall of the second rod holder body. Also, a holder clamping member may be directly, translatably, and selectively removably coupled to the second rod holder body and selectively rotatably coupled to the mounting bracket and include a first holder arm assembly coupled to the rod holder body and the mounting bracket and a second holder arm assembly coupled to the second rod holder body and the mounting bracket, wherein the first and second holder arm assemblies operably configured to independently rotate the rod holder body and the second rod holder body, respectively, with respect to one another.

In accordance with an additional feature of the present invention, the first holder arm assembly and the second holder arm assembly each have two joints operably configured to generate two degrees of freedom (DOF) rotationally.

In accordance with a further feature, an embodiment of the present invention also includes the holder clamping member having a serrated fastener selectively rotatably coupled in a rotationally locked position with respect to an end of either the first holder arm assembly or the second holder arm assembly through a complementary serrated fastener.

In accordance with a further feature, an embodiment of the present invention also includes the first holder arm assembly and the second holder arm assembly having a mounting member with both the first holder arm assembly

4

and the second holder arm assembly directly coupled thereto and having at least one hinge member with the first holder arm assembly and the second holder arm assembly directly coupled thereto, wherein the mounting member defines a mounting keyway aperture defined on an outer surface thereof and including a mounting keyed latch coupled thereto and wherein the mounting keyed latch is accessible through the mounting keyway aperture and operably configured to lockedly engage with the mounting bracket.

In accordance with an additional feature of the present invention, the removed position along the rod locking path includes the portion of the locking bar structurally allowing entry and egress to the discontinuous slot from a length of approximately 2-12 inches above the upper end of the rod holder body.

In accordance with yet another feature, an embodiment of the present invention also includes a bar collar directly coupled to the outer surface of the rod holder body, defining two internal bar receiving channels, having an upper surface defining two bar receiving apertures spatially coupled, respectively, to the two internal bar receiving channels, defining a keyway aperture defined on an outer surface thereof, and including a keyed latch encapsulated in the bar collar and accessible through the keyway aperture, wherein the locking bar has two portions disposed in the two internal bar receiving channels and the two bar receiving apertures, respectively and operably configured to linearly translate therein and engaged with the keyed latch when in the locked position along the rod locking path.

In accordance with another feature, an embodiment of the present invention also includes the locking bar having a plurality of locking notches defined on each of the two portions of the locking bar, the locking bar operably configured to have a plurality of locked positions along the rod locking path with one of the plurality of locking notches engaged with the keyed latch.

Also in accordance with the present invention, a vehicle fishing rod holder is disclosed that includes a mounting bracket having a free end surface operably configured for selectively locked retention to a truck bed, a rod holder body having a sidewall with an upper end, a bottom end opposing the upper end defining an upper aperture, a body length separating the upper and bottom ends, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end and terminating along the body length, the rod holder body selectively rotatably coupled and lockable with respect to the mounting bracket, wherein the vehicle fishing rod holder also includes a locking bar coupled to the rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to the discontinuous slot defined by the sidewall and having longitudinally restricted movement and a removed position providing continuous access to the discontinuous slot.

Although the invention is illustrated and described herein as embodied in a vehicle fishing rod holder, it is, nevertheless, not intended to be limited to the details shown because various modifications and structural changes may be made therein without departing from the spirit of the invention and within the scope and range of equivalents of the claims. Additionally, well-known elements of exemplary embodiments of the invention will not be described in detail or will be omitted so as not to obscure the relevant details of the invention.

5

Other features that are considered as characteristic for the invention are set forth in the appended claims. As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one of ordinary skill in the art to variously employ the present invention in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting; but rather, to provide an understandable description of the invention. While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures, in which like reference numerals are carried forward. The figures of the drawings are not drawn to scale.

Before the present invention is disclosed and described, it is to be understood that the terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting. The terms “a” or “an,” as used herein, are defined as one or more than one. The term “plurality,” as used herein, is defined as two or more than two. The term “another,” as used herein, is defined as at least a second or more. The terms “including” and/or “having,” as used herein, are defined as comprising (i.e., open language). The term “coupled,” as used herein, is defined as connected, although not necessarily directly, and not necessarily mechanically. The term “providing” is defined herein in its broadest sense, e.g., bringing/coming into physical existence, making available, and/or supplying to someone or something, in whole or in multiple parts at once or over a period of time. Also, for purposes of description herein, the terms “upper,” “lower,” “left,” “rear,” “right,” “front,” “vertical,” “horizontal,” and derivatives thereof relate to the invention as oriented in the figures and is not to be construed as limiting any feature to be a particular orientation, as said orientation may be changed based on the user’s perspective of the device. Furthermore, there is no intention to be bound by any expressed or implied theory presented in the preceding technical field, background, brief summary or the following detailed description.

As used herein, the terms “about” or “approximately” apply to all numeric values, whether or not explicitly indicated. These terms generally refer to a range of numbers that one of skill in the art would consider equivalent to the recited values (i.e., having the same function or result). In many instances these terms may include numbers that are rounded to the nearest significant figure. In this document, the term “longitudinal” should be understood to mean in a direction corresponding to an elongated direction of the rod and holder, spanning from a bottom end to a top end thereon.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying figures, where like reference numerals refer to identical or functionally similar elements throughout the separate views and which together with the detailed description below are incorporated in and form part of the specification, serve to further illustrate various embodiments and explain various principles and advantages all in accordance with the present invention.

6

FIG. 1 is a perspective partially exploded view of a vehicle fishing rod holder in accordance with one embodiment of the present invention;

FIG. 2 is a perspective partially exploded view of a vehicle fishing rod holder in accordance with another embodiment of the present invention;

FIG. 3 is a perspective view of a rod holder body, a locking bar, and a holder clamping member of the vehicle fishing rod holder in FIG. 1 in accordance with one embodiment of the present invention;

FIG. 4 is an exploded view of the rod holder body, the locking bar, and the holder clamping member depicted in FIG. 3;

FIG. 5 is an exploded view of the locking bar depicted in FIG. 3;

FIG. 6 is an exploded view of a plurality of arms of the vehicle fishing rod holder in FIG. 1 in accordance with one embodiment of the present invention;

FIG. 7 is a perspective view of a mounting bracket of the vehicle fishing rod holder in FIG. 2 in accordance with one embodiment of the present invention;

FIGS. 8-9 are left- and right-side perspective views, respectively, of the vehicle fishing rod holder in FIG. 1 in accordance with one embodiment of the present invention in accordance with the present invention;

FIG. 10 is an overhead view of the vehicle fishing rod holder in FIG. 1 in accordance with one embodiment of the present invention;

FIGS. 11-12 are left- and right-side perspective views, respectively, of the vehicle fishing rod holder in FIG. 2 in accordance with one embodiment of the present invention;

FIG. 13 is an overhead view of the vehicle fishing rod holder in FIG. 2 in accordance with one embodiment of the present invention; and

FIGS. 14-16 are perspective views of a vehicle fishing rod holder in accordance with another embodiment of the present invention.

DETAILED DESCRIPTION

While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures, in which like reference numerals are carried forward. It is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms.

The present invention provides a novel and efficient vehicle fishing rod holder that enables a user to safely, securely, efficiently, and effectively store one or more fishing rod(s) in vehicle, namely in the bed of a user’s truck. Referring now to FIGS. 1-2, two embodiments of the present invention are shown in perspective views, wherein said embodiments vary based a bracket that may be utilized to effectuate attachment of the holder to the bed of a user’s truck. Said figures (and those subsequent thereto) show several advantageous features of the present invention, but, as will be described below, the invention can be provided in several shapes, sizes, combinations of features and components, with adaptability to various truck beds, and varying numbers and functions of the components.

The first example of a vehicle fishing rod holder 100, as shown in FIGS. 1-2, includes a rod holder body 102, a locking bar 110 utilized to retain and secure a fishing rod 200, reel 204, and a reel post 206, and a holder clamping member 112 that couples the holder body 102 to a mounting

bracket **114**, **202** or other portion of a truck bed. Specifically, the mounting bracket **114** depicted in FIG. **1** is generally configured for attachment to a Ford® model truck bed and the mounting bracket **202** depicted in FIG. **2** is generally configured for attachment to a GM®, Dodge®, and Chevy® model truck beds. The vehicle fishing rod holder **100** may also utilize bar collar **128** for receiving one or more portions of the locking bar **110**, a plurality of movable arm assemblies **122**, **124**, and an arm bracket attachment or mounting member **136** having the free end surface **134** that will be prevented from movement when attached to a truck bed. The aforementioned components may be of a substantially rigid and waterproof material, e.g., ABS plastic, stainless steel, etc. The aforementioned components facilitate in effectively, secure, safely, and efficiently storing and transporting a fishing rod **200** to the bed of a user's truck.

The vehicle fishing rod holder **100** may be utilized with a single rod holder body **102**, but may also be beneficially utilized with a second rod holder body **120**, a third rod holder body, etc. (depending on design constraints and applications). With reference to FIGS. **1-4**, each of the rod holder bodies may include a sidewall **104** with an upper end **106**, a bottom end **108** opposing the upper end **106** defining an upper aperture **304**, a body length **400** separating the upper and bottom ends **106**, **108**, an inner surface **300** defining a holding channel **306** spanning from the upper aperture **304** toward the bottom end **108**, an outer surface **302** opposing the inner surface **300**, and may each define a discontinuous slot **314** extending from the upper end **106** and terminating along the body length **400**. As used herein, the term "wall" is intended broadly to encompass continuous structures, as well as, separate structures that are coupled together so as to form a substantially continuous external surface. In one embodiment, the body length **400** is approximately 2-12 inches, but may lie outside of said range depending on design constraints and applications. However, the rod holder body **102** is sized and shaped such that it is operable (with the various adjustments described and depicted herein) to be placed against an interior side of the bed of a user's truck (often not extending passed the wheel well). Therefore, the size, shape, and adjustability of the rod holder body **102** results in maximum useable bed space, in addition to making accessing the retained rod(s) much easier, convenient, and safe over the prior art because a user is not required to climb over the side of the bed or otherwise climb inside the bed.

In one embodiment, the holder body **102** has an enclosed upper aperture **304** defined by the upper end **106**, while in other embodiments, the discontinuous slot **314** is beneficially formed. The discontinuous slot **314** may span up to approximately 1-4 inches and may include an upper portion that is larger in width than a lower portion of the discontinuous slot **314** to effectively enable egress and entry of the reel post **206**. The width of the entire discontinuous slot **314** should be greater, however, than a reel post **206**, thereby enabling the post **206** to extend downwardly through the discontinuous slot **314** and rest on the part of the sidewall **104** forming the discontinuous slot **314**. In some embodiments, the discontinuous slot **314** may be arcuate in portions to effectively receive the reel post **206**. Further, the portion of the sidewall **104** forming the discontinuous slot **314** may be lined with a deformably resilient material or padding, e.g., neoprene, designed to dampen, support, retain, and protect the reel post when inserted into the discontinuous slot **314**.

In one embodiment, the holder body **102** enables the handle and/or rod **200** portion of the fishing rod to only

exceed no further than a bottom wall disposed at the bottom end **108** of the body **102**. This may save on space in the truck bed. In other embodiments, the bottom end **108** defines a bottom aperture **308** defined thereon, wherein the holding channel **306** continuously spans and separates the upper aperture **304** and the bottom aperture **308**. As such, the opening **308** enables a greater length of the rod **200** and/or handle to be inserted through the body **102**, thereby accommodating more fishing rods lengths. The rod holder body **102** may be elongated (as depicted in the figures) and the holding channel **306** is cylindrical to save on space within a user's truck. Like the discontinuous slot **314**, the holding channel **306**, bottom aperture **308**, and locking bar **110** may be lined with a deformably resilient material or padding.

To effectively retain the fishing rod, the locking bar **110** is coupled to the rod holder body **102** and operably configured to selectively translate longitudinally along a rod locking path **310** having various position. The rod locking path **310** is depicted as being linear, but may curvilinear, rotational, or a combination of the same. For example, a locked position along the rod locking path **310** (depicted best in FIG. **3** and FIG. **10**) includes a portion **312** of the locking bar **110** positioned proximally adjacent to the discontinuous slot **314** defined by the sidewall **104** and having longitudinally restricted movement. Said another way, the locking bar **110** is positioned at or within approximately 2-6 inches from and/or within the discontinuous slot **314** to be positioned over the reel post **206** and/or reel **204** (e.g., a reel like shown in the figures or a bait caster, trolling reel, etc.). In a preferred embodiment the locking bar **110** is positioned proximally adjacent to the outer surface **302** of the sidewall **104** when in a locked position. In other embodiments, however, the locking bar **110** may be positioned proximally adjacent to the inner surface **300** of the sidewall **104**. The locking bar **110** may be of a very rigid tube or bar material, e.g., stainless steel, and may beneficially include an upper circular and flexed/bent portion **506** that is configured to extend over the upper aperture **304** and have a diameter sufficient to receive the diameter of the rod **200** (best seen in FIG. **2**). The locking bar **110** includes two portions **508**, **510** extending continuously downwardly from the flexed/bent portion **506** and terminating at distal free ends.

Referring to FIGS. **1-3** and FIG. **5**, the bar collar **128** can be seen having a contoured portion directly coupled to the outer surface **302** of the rod holder body **102**, and defining two internal bar receiving channels, having an upper surface **500** defining two bar receiving apertures **502**, **504** spatially coupled, respectively, to the two internal bar receiving channels. The bar collar **128** may be coupled to flanged bracket **422** using one or more fasten(s) or may be coupled in other methods, e.g., adhesive. The two internal bar receiving channels preferably continuously span through the bar collar **128**, i.e., the bar collar is completely bored therethrough. The bar collar **128** may beneficially define a keyway aperture defined on an outer surface, e.g., the upper surface **500**, thereof and include a keyed latch **514** encapsulated therein or otherwise coupled thereto, wherein the keyed latch **514** is accessible through the keyway aperture **512**. Those of skill in the art will appreciate that the keyed latch **514** may be rotated and/or operated only through use of a key mated to operate the keyed latch **514**. The two portions **508**, **510** are disposed in the two internal bar receiving channels and the two bar receiving apertures **502**, **504**, respectively and are operably configured to linearly translate therein. The locking bar **110** may include a plurality of locking notches **208a-n** (e.g., recess and/or ridges),

wherein “n” represents any number greater than two, defined on each of the two portions **508**, **510** of the locking bar **110**.

The locking bar **110** is operably configured to have a plurality of locked positions along the rod locking path **310** with one of the plurality of locking notches **208a-n** engaged with the keyed latch **514**. Said another way, the locking bar **110** is operable to be positioned above the reel post **206** and/or reel **204** and prevented from longitudinal movement when in the locked position along the rod locking path **310**. The locking bar **110** is also operable to have a removed position (depicted best in FIG. 5) with the portion **312** of the locking bar **110** not positioned proximally adjacent to the discontinuous slot **314** defined by the sidewall **104**. Said another way, the removed position along the rod locking path **310** includes the portion **312** of the locking bar **110** structurally allowing entry and egress to the discontinuous slot **314** from a length of approximately 2-12 inches above the upper end **106** of the rod holder body **102**. Advantageously, the locking bar **110** is operable to be completely removed from the upper aperture **304** and slot **314** to allow quick, efficient, and uninhibited entry and egress of the fishing rod **200** and reel **204** to and from the holding channel **306**.

As seen in FIG. 1 and FIG. 4, a holder clamping member **112** may be utilized that is directly, translatably, and selectively removably coupled to the rod holder body **102** to enable quick and effective vertical adjustment of a holder body **102**. The holder clamping member **112** may be selectively rotatably coupled to a free end surface (e.g., surfaces **134**, **210**) that is couplable to a mounting bracket **114**, **202** that may also have a free surface operably configured for selectively locked retention to a truck bed, e.g., using the tie-down configuration of a truck bed. More specifically, in one embodiment, the holder body **102** may include a front plurality and a rear plurality of locking notches **402a-n** disposed longitudinally along the outer surface **302** of the sidewall **104** thereof. The locking notches **402a-n** may consist of recesses, ridges, or a combination of the same to enable a mating attachment with the holder clamping member **112**. The locking notches **402a-n** may be disposed, respectively, on opposing side surfaces of the sidewall **104** of the rod hold body **102**, wherein the holder clamping member **112** includes front and rear locking notches **404a-n** disposed, respectively, on opposing side surfaces **406** of the holder clamping member **112** (wherein rear locking notches are not depicted but are the same configuration, size, and/or shape as the front locking notches). The front and rear locking notches **404a-n** would have a complementary coupling configuration with respect to the front plurality and a rear plurality of locking notches **402a-n** disposed on the outer surface **302** of the sidewall **104** of the rod hold body **102**, thereby preventing longitudinal and/or linear translation of the holder body **102** unless desired by the user. Said another way, the user may selectively adjust the height of the holder body **102** with respect to the holder clamping member **112** and the mounting bracket **114**, **202**.

In one embodiment, the plurality of locking notches **402a-n**, **404a-n** may be cylindrical knobs and complementary recesses configured to mate with one another, but may have other shapes, sizes, and configurations enabling a secure or locked coupling configuration. In one embodiment, the user may selectively adjust the height of the holder bodies by unfastening or coupling two collar members **408**, **410** from one another with one or more fasteners, e.g., fastener **416**. The two collar members **408**, **410** may each include an inner surface **412** having, respectively, the front plurality and the rear plurality of locking notches **402a-n**.

The two collar members **408**, **410** may be removably and directly coupled together with at least one fastener to contour and surround a perimeter of the outer surface **302** of the rod holder body **102**. The two collar members **408**, **410** may directly couple together with a flange, e.g., flange **418**, extending outwardly therefrom. The complementary coupling configuration of the locking notches **402a-n**, **404a-n** beneficially restricts longitudinal movement of the rod holder body **102** respect to the two collar members **408**, **410**. The collar member **408** may be directly coupled to the mounting bracket **114**, **202** or the holder arm assembly **122** (as depicted in the figures).

In another embodiment of the present invention, the front plurality and the rear plurality of locking notches **402a-n** extend 30%, or in some embodiments at least 50%, of the body length **400** and are equally spaced with respect to one another on the opposing side surfaces of the sidewall **104** of the rod hold body **102**. Further, each of the front plurality and the rear plurality of locking notches **402a-n** may be spaced approximately 1 inch apart, thereby allowing for selective vertical adjustment for rods of varying length, e.g., 6-20 feet. In additional embodiments, the outer surface **302** of the sidewall **104** of the rod hold body **102** also includes a left plurality and a right plurality of locking notches **402a-n** disposed longitudinally along the outer surface **302** of the sidewall **104** of the rod hold body **102**, wherein the left plurality and a right plurality of locking notches **402a-n** are disposed, respectively, on opposing side surfaces of the sidewall **104** of the rod hold body **102**. Providing locking knobs on two opposing sides enables max resistance, wherein in other embodiments a perimeter flange may be utilized to lock the rod holder **102** to the holder clamping member **112**. However, when locking notches are utilized, one embodiment includes the front plurality, the rear plurality, the left plurality and the right plurality of locking notches **402a-n** each extending at least 50% of the body length **400** and equally spaced with respect to one another on the respective opposing side surfaces of the sidewall **104** of the rod hold body **102** and of a complementary coupling configuration with respect to the front and rear locking notches **404a-n** and a left and a right locking notch, respectively, of the holder clamping member **112**.

With reference to FIG. 1 and FIG. 6, the clamping member **112** includes a serrated fastener **116** selectively rotatably coupled in a rotationally locked position with respect to the mounting bracket **114**, **202** through a complementary serrated fastener **118**. In one embodiment, the rod holder **102** is operable to rotate 360° by selectively uncoupling the serrated fastener **116** with respect to the complementary serrated fastener **118** and then coupling or fastening them together, e.g., with a fastener **420** and nut **130** so that rotational movement is prevented. In another embodiment of the present invention, a spring may be utilized and coupled with the fasteners **116**, **118**, thereby causing a biasing compression force keeping the two fasteners joined together. When the user desires to rotate the rod holder **102**, he or she will quickly and efficiently pull the rod holder **102** and rotate to the desired angle.

In another embodiment of the present invention, a first holder arm assembly **122** is coupled to the rod holder body **102** and the mounting bracket **114** and a second holder arm assembly **124** coupled to the second rod holder body **120** and the mounting bracket **114**. The first and second holder arm assemblies **122**, **124** may then be operably configured to independently rotate the rod holder body **102** and the second rod holder body **120**, respectively, with respect to one another. Additionally, the first holder arm assembly **122** and

11

the second holder arm assembly **124** may also each have two joints, e.g., joint **126**, operably configured to generate two degrees of freedom (DOF) rotationally. The holder arm assemblies **122**, **124** may each have the serrated fastener **118** coupled to an end thereof, allowing independent rotation and pivoting of two adjacent rod holders, thereby providing more adjustability for each rod desired to be retained. As seen best in FIG. 6, each of the holder arm assemblies may include three sections forming the joints, i.e., a distal pivoting member **600**, an intermediate pivoting member **602**, and a mounting member **604** (all connected together with one or more fastener(s), e.g., fastener **606**). The sectioned holder arm assembly **122** beneficially enables both distal pivoting or rotation (approximately 180° and represented with arrow **608**) and wide range pivoting or rotation (approximately 180° and represented with arrow **610**).

With reference to FIGS. 6-13, the mounting member **604** may include two apertures formed thereon for receiving one or more fastener(s) (e.g., fastener **612**) that directly couples to a mounting keyed latch **614** that may be encapsulated in or otherwise coupled to the mounting member **604**. Said another way, the mounting member **604** has both the first holder arm assembly **122** and the second holder arm assembly **124** directly coupled thereto and includes at least one hinge member with the first holder arm assembly **122** and the second holder arm assembly **124** directly coupled thereto. As seen best in FIG. 6, the first holder arm assembly **122** and the second holder arm assembly **124** share the mounting member **604** as a joint, enabling the two holder bodies **102**, **120** to pivot to a substantially planar position with respect to one another. The mounting member **604** may also define a mounting keyway aperture **616** defined on an outer surface thereof and includes a mounting keyed latch **614** coupled thereto. The mounting keyed latch **614** is accessible through the mounting keyway aperture **616** and is operably configured to lockedly engage with the mounting bracket **114**, **202**, thereby providing additional attachment security for the holder assembly **100**. Although the assembly **100** may beneficially utilize a mounting keyed latch thereon, in alternative embodiments of the present invention, a latch may be locked in position with a padlock or other selectively removable structure (instead of using a key) that is inserted through the keyway aperture.

FIG. 1 and FIGS. 8-10 depict the bracket **114** configured for placement in the bed of a user's truck using the pre-drilled holes. Beneficially, the bracket **114** includes a mounting aperture **132** shaped, sized, and configured to receive the mounting member **604**. The mounting aperture **132** may beneficially include a first portion sized to be greater than a portion of the mounting member **604** and a second portion sized to be smaller than a portion of the mounting member **604**, thereby enabling the mounting member **604** to slidably engage with the mounting bracket **114** and lock thereto. FIG. 7 also more closely depicts the mounting bracket **202** in FIG. 2, which enables placement of the mounting bracket **202** in an alternative truck bed location using a fastener **700**, a bushing **702**, mounting plate **704**, and mounting locks **706**, **708**. FIGS. 8-10 depict similar features to the assembly **100** in FIG. 1, but depict alternative locations for keyway apertures. Similarly, FIGS. 11-13 depict similar features to the assembly **100** in FIG. 2, but depict alternative locations for keyway apertures. As such, user is provided with increased placement flexibility, as the rod holder **100** will fit in any designated tie down spots (for various vehicle makes) without any drilling to add new holes in the truck or without welding or using permanent and semi-permanent methods.

12

Although a specific order of installation and coupling steps has been disclosed, the order of executing the steps may be changed relative to the order shown in certain embodiments. Also, two or more steps shown in succession may be executed concurrently or with partial concurrence in some embodiments. Certain steps may also be omitted for the sake of brevity. In some embodiments, some or all of the process steps can be combined into a single process.

Various modifications and additions can be made to the exemplary embodiments discussed without departing from the scope of the present disclosure. For example, while the embodiments described above refer to particular features, the scope of this disclosure also includes embodiments having different combinations of features and embodiments that do not include all of the above described features.

What is claimed is:

1. A vehicle fishing rod holder comprising:
 - a rod holder body having a sidewall with an upper end, a bottom end opposing the upper end defining an upper aperture, a body length separating the upper and bottom ends, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end and terminating along the body length;
 - a locking bar with two opposing distal free ends and coupled with two portions of the locking bar interposed between the two opposing distal free ends to the rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to and across the discontinuous slot defined by the sidewall and having longitudinally restricted movement and a removed position with the portion of the locking bar not positioned proximally adjacent to the discontinuous slot defined by the sidewall; and
 - a holder clamping member directly, translatably, and selectively removably coupled to the rod holder body and selectively rotatably coupled to a free end surface operably configured for selectively locked retention to a truck bed.
2. The vehicle fishing rod holder according to claim 1, wherein the bottom end further comprises:
 - a bottom aperture defined thereon, wherein the holding channel continuously spans and separates the upper aperture and the bottom aperture.
3. The vehicle fishing rod holder according to claim 2, wherein:
 - the rod holder body is elongated and the holding channel is cylindrical.
4. The vehicle fishing rod holder according to claim 1, further comprising:
 - a front plurality and a rear plurality of locking notches disposed longitudinally along the outer surface of the sidewall of the rod hold body and disposed, respectively, on opposing side surfaces of the sidewall of the rod hold body, the holder clamping member including front and rear locking notches disposed, respectively, on opposing side surfaces of the holder clamping member and having a complementary coupling configuration with respect to the front plurality and a rear plurality of locking notches disposed on the outer surface of the sidewall of the rod hold body.

13

5. The vehicle fishing rod holder according to claim 4, wherein:

the front plurality and the rear plurality of locking notches extending at least 50% of the body length and equally spaced with respect to one another on the opposing side surfaces of the sidewall of the rod hold body.

6. The vehicle fishing rod holder according to claim 4, wherein the outer surface of the sidewall of the rod hold body further comprises:

a left plurality and a right plurality of locking notches disposed longitudinally along the outer surface of the sidewall of the rod hold body and disposed, respectively, on opposing side surfaces of the sidewall of the rod hold body, the front plurality, the rear plurality, the left plurality and the right plurality of locking notches:

extending at least 50% of the body length and equally spaced with respect to one another on the respective opposing side surfaces of the sidewall of the rod hold body; and

of a complementary coupling configuration with respect to the front and rear locking notches and a left and a right locking notch, respectively, of the holder clamping member.

7. The vehicle fishing rod holder according to claim 4, wherein the holder clamping member further comprises:

two collar members each with an inner surface having, respectively, the front plurality and the rear plurality of locking notches, the two collar members removably and directly coupled together with at least one fastener to contour and surround a perimeter of the outer surface of the rod holder body, the complementary coupling configuration restricting longitudinal movement of the rod holder body respect to the two collar members.

8. The vehicle fishing rod holder according to claim 1, wherein the holder clamping member further comprises:

a serrated fastener selectively rotatably coupled in a rotationally locked position with respect to the free end surface through a complementary serrated fastener.

9. The vehicle fishing rod holder according to claim 1, further comprising:

a second rod holder body having a sidewall with an upper end, a bottom end opposing the upper end of the second rod holder body and defining an upper aperture, a body length separating the upper and bottom ends of the second rod holder body, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end of the second rod holder body and terminating along the body length of the second rod holder body;

a locking bar coupled to the second rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to the discontinuous slot defined by the sidewall of the second rod holder body and having longitudinally restricted movement and a removed position with the portion of the locking bar not positioned proximally adjacent to the discontinuous slot defined by the sidewall of the second rod holder body;

a holder clamping member directly, translatably, and selectively removably coupled to the second rod holder body and selectively rotatably coupled to the free end surface; and

14

a first holder arm assembly coupled to the rod holder body and the free end surface and a second holder arm assembly coupled to the second rod holder body and the free end surface, the first and second holder arm assemblies operably configured to independently rotate the rod holder body and the second rod holder body, respectively, with respect to one another.

10. The vehicle fishing rod holder according to claim 9, wherein:

the first holder arm assembly and the second holder arm assembly each have two joints operably configured to generate two degrees of freedom (DOF) rotationally.

11. The vehicle fishing rod holder according to claim 9, wherein the holder clamping member further comprises:

a serrated fastener selectively rotatably coupled in a rotationally locked position with respect to an end of either the first holder arm assembly or the second holder arm assembly through a complementary serrated fastener.

12. The vehicle fishing rod holder according to claim 9, wherein the first holder arm assembly and the second holder arm assembly further comprise:

a mounting member with both the first holder arm assembly and the second holder arm assembly directly coupled thereto and having at least one hinge member with the first holder arm assembly and the second holder arm assembly directly coupled thereto, the mounting member defining a mounting keyway aperture defined on an outer surface thereof and including a mounting keyed latch coupled thereto, the mounting keyed latch accessible through the mounting keyway aperture and operably configured to lockedly engage with a mounting bracket.

13. The vehicle fishing rod holder according to claim 1, wherein:

the removed position along the rod locking path includes the portion of the locking bar structurally allowing entry and egress to the discontinuous slot from a length of approximately 2-12 inches above the upper end of the rod holder body.

14. The vehicle fishing rod holder according to claim 1, further comprising:

a bar collar directly coupled to the outer surface of the rod holder body, defining two internal bar receiving channels, having an upper surface defining two bar receiving apertures spatially coupled, respectively, to the two internal bar receiving channels, defining a keyway aperture defined on an outer surface thereof, and including a keyed latch encapsulated in the bar collar and accessible through the keyway aperture, the locking bar having two portions disposed in the two internal bar receiving channels and the two bar receiving apertures, respectively and operably configured to linearly translate therein and engaged with the keyed latch when in the locked position along the rod locking path.

15. The vehicle fishing rod holder according to claim 14, wherein the locking bar further comprises:

a plurality of locking notches defined on each of the two portions of the locking bar, the locking bar operably configured to have a plurality of locked positions along the rod locking path with one of the plurality of locking notches engaged with the keyed latch.

16. A vehicle fishing rod holder comprising:

a free end surface operably configured for selectively locked retention to a truck bed;

15

a rod holder body having a sidewall with an upper end, a bottom end opposing the upper end defining an upper aperture, a body length separating the upper and bottom ends, an inner surface defining a holding channel spanning from the upper aperture toward the bottom end, an outer surface opposing the inner surface, and defining a discontinuous slot extending from the upper end and terminating along the body length, the rod holder body selectively rotatably coupled and lockable with respect to the mouthing bracket; and

- a locking bar with two opposing distal free ends and coupled with two portions of the locking bar interposed between the two opposing distal free ends to the rod holder body and operably configured to selectively translate longitudinally along a rod locking path having a locked position with a portion of the locking bar positioned proximally adjacent to and across the discontinuous slot defined by the sidewall and having longitudinally restricted movement and a removed position providing continuous access to the discontinuous slot.

16

17. The vehicle fishing rod holder according to claim 16, further comprising:

- a holder clamping member directly, translatably, and selectively removably coupled to the rod holder body and selectively rotatably coupled to the free end surface.

18. The vehicle fishing rod holder according to claim 16, further comprising:

- a front plurality and a rear plurality of locking notches disposed longitudinally along the outer surface of the sidewall of the rod hold body and disposed, respectively, on opposing side surfaces of the sidewall of the rod hold body, the holder clamping member including front and rear locking notches disposed, respectively, on opposing side surfaces of the holder clamping member and having a complementary coupling configuration with respect to the front plurality and a rear plurality of locking notches disposed on the outer surface of the sidewall of the rod hold body.

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